

WHAT IS CLAIMED IS:

- 1    1.    A water distribution system for wetting an evaporative media pad  
2        having an air inlet side, an opposing air outlet side, a pair of sides  
3        extending between the air inlet side and air outlet side, and a top,  
4        the system comprising:  
5                a nozzle configured to spray a stream of water upwardly;  
6                a water distributor located above the top of the media pad  
7        having a substantially horizontal receiving surface configured to split the  
8        stream of water into a first portion directed toward the air inlet side and a  
9        second portion directed away from the air inlet side.
- 1    2.    The system of claim 1, wherein the receiving surface extends from  
2        a point of contact a sufficient distance to allow the first and second  
3        portions of the stream of water to extend substantially across an  
4        entire width of the receiving surface.
- 1    3.    The system of claim 2, wherein a width of the first and second  
2        portions of the stream of water is substantially equal to a width of  
3        the media pad as defined by the distance between the pair of sides  
4        of the media pad.
- 1    4.    The system of claim 3, wherein the nozzle directs the stream of  
2        water toward the receiving surface at a non-vertical angle.
- 1    5.    The system of claim 4, wherein a volume of the first portion of the  
2        stream of water is not equal to a volume of the second portion of  
3        the stream of water.
- 1    6.    The system of claim 5, further including a support plate comprising  
2        a first member extending from an end of the distributor closer to

3 the air outlet side and extending downward and toward the air inlet  
4 side.

1 7. The system of claim 6, wherein the nozzle is supported by the  
2 support plate.

1 8. The system of claim 6, further including a second member  
2 extending downward from the distributor distal the support plate  
3 directing the second portion of the stream of water toward the  
4 media pad, wherein the second portion of the stream of water is  
5 directed closer to the air inlet side than the first portion of the  
6 stream of water.

1 9. The system of claim 8, further including a third member directing a  
2 portion of the second portion of the stream of water toward the  
3 media pad in a location different than the second member.

1 10. The system of claim 9 wherein the first member and second  
2 member each includes a plurality of channels extending  
3 substantially between the inlet and outlet sides of the media.

1 11. A water distribution system for wetting an evaporative media pad  
2 having an air inlet side, an opposing air outlet side, a pair of sides  
3 extending between the air inlet side and air outlet side, and a top,  
4 the system comprising:

5 a nozzle configured to spray a stream of water against a  
6 water distributor having a plurality of fingers to direct the stream of water  
7 therealong;

8 the fingers including a first set of fingers directing a portion  
9 of the stream of water in a first direction toward a first location on the  
10 top of the media pad and a second set of fingers directing a second

11 portion of the stream of water toward a second location on the top of the  
12 media pad.

1 12. The system of claim 11, further including a third set of fingers to  
2 direct a third portion of water to a third location on the top of the  
3 media pad.

1 13. The system of claim 12, wherein the water distributor includes a  
2 substantially horizontal receiving surface located above the nozzle  
3 being configured to split the stream of water and direct the two  
4 different streams of water in opposite directions.

1 14. The system of claim 13, wherein the receiving surface has a first  
2 end and an opposing second end, and the first set of fingers extend  
3 proximate the first end of the receiving surface and directed  
4 downward and toward the second end of the receiving surface.

1 15. The system of claim 14, wherein the second set of fingers extend  
2 from the receiving surface proximate the second end of the  
3 receiving surface and directed downward toward the top of the  
4 media pad.

1 16. The system of claim 15, wherein the second set of fingers  
2 alternatively extend downward in two different directions thereby  
3 diverting the second portion of the stream of water to two different  
4 locations on the top of the media pad.

1 17. The system of claim 16, wherein the nozzle sprays the stream of  
2 water toward the receiving surface upwardly at a non-vertical  
3 angle.

1 18. The system of claim 17, wherein the non-vertical angle is between  
2 forty and sixty degrees relative to the receiving surface.

1    19.    A water distribution system for wetting an evaporative media pad  
2            in an evaporative cooler comprising:  
3            a nozzle configured to spray a stream of water against a  
4    water distributor having a plurality of fingers to direct the stream of water  
5    therealong, the plurality of fingers being separated by a channel or a slit  
6    and directed downwardly, the plurality of fingers including at least two  
7    fingers directing a portion of the stream of water to at least two different  
8    locations respectively.

1    20.    The system of claim 19, wherein there the nozzle sprays more than  
2            one stream of water.